

APPENDIX A

LOCAL NATIONAL WEATHER SERVICE (NWS) OFFICE PRODUCTS

A.1 Hurricane/Typhoon Local Statements (HLS). WFOs with coastal county responsibilities will issue these unnumbered products which are very specific and designed to inform media, local decision makers, and the public on present and anticipated storm effects in their county warning area (CWA) and adjacent coastal waters. Keep HLSs as succinct as possible.

A.1.1 Issuance Criteria. WFOs with coastal responsibility will issue a HLS when its area of responsibility is affected by a tropical cyclone watch/warning or evacuation orders. Coastal WFOs have the option as to which of their inland counties will be included in a HLS. It is a regional option if inland WFOs issue HLSs. If an Inland Tropical Storm/Hurricane Wind Watch or Warning is issued, it will be issued under the non-precipitation warning product (NPW). Refer to section A.3.

A.1.2 Issuance Times. When a tropical storm or hurricane is close to the coast, issue HLSs every 2 to 3 hours or more frequently as circumstances warrant. Do not release HLSs immediately before an advisory unless information is coordinated with the appropriate Tropical Cyclone Center and, for watches or warnings, the valid initiation time is specified. HLSs do not need to immediately follow the issuance of a new hurricane advisory. Issuing HLSs midway between advisories maintains a steady flow of information to the media and the public. Whenever a new advisory changes the potential impact on a local area, information needs to be distributed in a fresh HLS as soon as possible. Routine HLSs may cease when the tropical cyclone is no longer a threat to an office's CWA.

A.1.3 Content. HLSs will add localized details to Tropical Cyclone Center's advisory releases and should not conflict with or repeat advisory information not directly applicable to the local office's CWA. Before the first HLS, use public information statements (PNS) to inform the public on routine hurricane preparedness information. The first HLS can also contain standard preparedness messages. Information may be added to the end of the HLS describing where additional storm information can be found in supporting Center's TCP and TCM as well as PNSs and NOWs (Short Term Forecast) issued by the local office.

HLSs should use tropical cyclone position estimates between advisories when appropriate. When tropical cyclones threaten the Samoas (American Samoa and Samoa), the two local offices will coordinate with RSMC Nadi, CPHC, and with each other to determine the best integrated and internally consistent forecast of conditions expected in the area.

The following table defines which products are issued via the normal suite of product headers during tropical cyclone watches/warnings and those products superseded by tropical cyclone watches/warnings and carried in a HLS. Severe thunderstorm warnings can be issued as stand-alone products at the discretion of the WFO. However, their use should be confined to peripheral events, such as outer rainbands, prior to sustained tropical storm or hurricane strength

winds. Stand-alone special marine warnings will only be issued for tornadoes over water during tropical cyclone watch/warning situations. Issue initial inland tropical storm wind or inland hurricane wind watches/warnings as a standalone product; however, subsequent updates may be carried within the body of the HLS.

HLS Product Table

Product	Tropical Cyclone Watch/Warning	
	HLS	Stand-alone
Flash Flood Watch/Warning/Statement		X
Flood Warning		X
Tornado Warning		X
Inland Tropical Storm Wind or Inland Hurricane Wind Watch/Warning		X ¹
Severe Thunderstorm Warning		X ²
Coastal Flood Watch/Warning/Statement	X	
Special Marine Warning		X ³
Severe Weather Statement		X
Marine Weather Statement		X
Special Weather Statement	X	
Heavy/High Surf Advisory issued under the product Marine Weather Statement	X	

¹Issue all initial watches and warnings and cancel the watch/warning as a standalone product; however, updates will be carried within the body of the HLS.

²Can be issued as a stand-alone product at discretion of forecast offices prior to the onset of sustained tropical storm or hurricane force winds.

³For tornadoes over water only, otherwise combine with HLS.

A.1.4 Format. Use the standardized format with “headlines by hazard.” As appropriate, product header options are “Hurricane Local Statement”, “Tropical Storm Local Statement,” or “Tropical Depression Local Statement.” Prepare each section of the HLS by a content/topic header set off by three dots before and after each header. Prioritize and adjust the order to focus on the greatest threat and the most important information impacting the area.

A.1.5 Essential contents of Hurricane Local Statements:

...Headline...

Concise lead sentence or headline.

...Areas Affected...

Details of which counties, parishes, or cities are included in the HLS.

...Watches/Warnings...

Watches and warnings in effect and counties or parishes to which they apply.

...Storm Information...

Present location, movement, and winds and expected time of onset of tropical storm/hurricane/typhoon force winds. Give timing of impacts in ranges or general terms such as “afternoon,” “evening,” and so on. Use the tropical cyclone forecast/advisory as guidance.

...Precautionary/Preparedness Actions...

Short-term precautionary actions and times they should be completed.

This includes any evacuation recommendations contained in the advisory or stated by local authorities. Listing these actions is particularly important once a tropical cyclone watch or warning is announced.

...Storm Surge Flood and Storm Tide Impacts...

Storm surge and storm tide (storm surge plus astronomical tide) information, including times various heights are expected, present heights, and their locations. Storm surge information must agree with Tropical Cyclone Center forecasts as included in the advisories. Include storm tide information because local officials might not have access to tide tables. Reference storm tide forecasts to appropriate datums understood by local authorities. For many portions of the coast, this would be mean sea level although some areas use mean lower low water.

...Wind Impacts...

Present winds and expected time of onset of tropical storm or hurricane force winds. (Use the tropical cyclone forecast/advisory as guidance.)

...Other Impacts...(Substitute appropriate header to reflect most important threat)

Any required statements on potential tornado and flood/flash flood threats, rip currents, beach erosion, high wind warnings inland, etc.

...Probability of Hurricane/Tropical Storm Conditions...

Information on probability of hurricane/typhoon/tropical storm conditions is optional.

...Next Update...

Time of next or final statement.

A.1.6 Relationship of HLSs to the NOW. The NOW is a stand-alone product focused on conditions impacting the office's CWA for the next 0 to 6 hours. It will complement the HLS by providing critical storm information in the first eight lines.

A.1.7 Optional Use of Special Weather Statements for Probability of Tropical Cyclone Conditions (SPS). Special weather statements (SPS) may be used to briefly describe tropical cyclone probabilities prior to HLS release. These statements may be issued up to four times a day following the issuance of probabilities in the 0300, 0900, 1500, and 2100 UTC hurricane or tropical storm advisories, or following the issuance of special advisories. Refer to the probabilities in the "totals" column instead of various time periods. Include the probability for your area with an explanation on how such a probability compares to the surrounding coastal sections.

A.2 Tornado and Flash Flood Warnings (TOR/FFW). Issue warnings when conditions warrant.

A.3 Inland Tropical Storm/Hurricane Wind Watch or Warning (NPW). When a tropical cyclone is expected to remain at tropical storm or hurricane intensity inland, local NWS forecast offices will issue inland tropical storm or hurricane wind watches and warnings under the non-precipitation warning product (NPW). The NPW will be exclusively used for this product's issuance and cancellation. However, subsequent statements, such as updates, will be placed in the HLS. A headline will be "Inland Tropical Storm Wind Watch (or Warning)" or "Inland Hurricane Wind Watch (or Warning)." Watches should not normally be issued beyond the second period of the forecast or warnings beyond the first period. Use the wind fields from the Tropical Cyclone Forecast/Advisory as guidance. When the effects of the tropical cyclone can be clearly described to the public and not lead to confusion, inland sections of *coastal* counties may be placed under inland tropical storm/hurricane wind watch or warning versus using tropical cyclone watches or warnings. Coordination will occur with all impacted offices and NHC before issuance. The appropriate forecasts and statements will highlight watches and warnings.

A.4 Inland Tropical Storm/Hurricane Wind Watch or Warning for Subtropical Storms. WFOs will issue an inland tropical storm wind watch or warning, or inland hurricane wind watch or warning when a subtropical storm is expected to spread tropical storm or hurricane force winds inland. Use same procedures as noted in section

A.5 Post-Tropical Cyclone Reports (PSH). All WFOs issuing HLSs will prepare post-storm reports. Non-coastal offices issuing inland tropical storm/hurricane wind watches or warnings will also submit reports. At the request from Tropical Cyclone Center(s) through the appropriate regions, other WFOs will prepare post-storm reports. Transmit the reports within 5 days following the transmission of the last HLS or inland tropical storm/hurricane wind watches or warnings addressed to the appropriate Tropical Cyclone Center or National Center and a copy to

WSH, W/OS21. Inland offices impacted by a tropical cyclone or its remnants will provide the same information via a Storm Data Report (LSR). Amend reports as needed.

A.5.1 Content. Include the following items in the initial report and in any subsequent updated reports:

- Wind data: Report highest 1-minute sustained surface wind speed (knots), peak gust (knots), and date/times of occurrence in UTC. Specify anemometer height (feet) if other than 33 feet and duration (minutes) if other than a 1-minute sustained average. Report all NWS, DOD, and Federal Aviation Administration official observing sites in a NWS office's CWA including ASOS sites, all NOAA buoy and Coastal Marine Automated Network (C-MAN) stations in the office's CWA, and all other reliable data collected by government sources or other institutions in the office's CWA. These include reports from stations maintained by the U. S. Coast Guard; state, county, and local governments; universities; private companies; and experimental networks. List adjusted speeds corrected for instrument type and speed range if known. Data reports from the public are optional. However, NWS offices should encourage these data and include them in the PSH when considered reliable.
- Pressure data: Report lowest sea level pressure (millibars), and date/time of occurrence (UTC). Report data from all sources given in Section a.
- Storm total rainfall: Report amount (inches) and duration (dates). In addition, list maximum 1-, 6-, 12-, and 24-hour amounts (inches) identifying date/time (UTC) of occurrence. Report data from all sources given in Section a.
- Maximum storm tide heights: Reference storm tide to appropriate datums understood by local authorities. For many portions of the coast, this would be National Geodetic Vertical Datum although some areas use mean lower low water. Report storm tide in feet above the datum, and storm surge in feet above the normal, predicted (astronomical) tide level). Identify location and date/time (UTC) of occurrence where possible.
- Extent of beach erosion: As appropriate.
- Flooding and/or flash flooding in CWA: Report to include date/times (UTC) and locations of occurrence.
- Tornadoes in CWA: Report (times and locations).
- Storm effects: Such as deaths, injuries, dollar damages, number of people evacuated, etc., within an office's CWA.

A.6 Information for Service Assessments. WFOs will forward a copy of media reports, especially newspaper clippings (online and printed) representative of the event and its impacts. Send reports to the appropriate RH and TPC within 7 days following the issuance of the last product concerning the storm. Reports do not have to include all interviews or radio or television spots concerning the landfall event in each local office's CWA.

A.7 Local Storm Reports (LSR). WFOs will prepare these reports in accordance with LSR instructions.

A.8 Correction Procedures. If a correction needs to be issued for any tropical cyclone product, list the reason for the correction immediately after the header of the corrected product.

All HLSs shall use a mass media standard text heading as illustrated in the following examples. Use the (Z) form of the Universal Generic Code.

A.9 Product Examples.

EXAMPLE: HURRICANE LOCAL STATEMENT

WTUS84 KBRO 141603
HLSBRO
TXZ251-254>257-141900-
HURRICANE LOCAL STATEMENT
NATIONAL WEATHER SERVICE BROWNSVILLE TX
1100 AM CDT MON AUG 14 2000

...DEPRESSION STRENGTHENS TO TROPICAL STORM BERYL...
...HURRICANE WARNINGS ARE POSTED FOR THE LOWER TEXAS COAST...

THIS STATEMENT DETAILS SPECIFIC PREPAREDNESS AND SAFETY ACTIONS
TO BE TAKEN IN THE DEEP SOUTH TEXAS COUNTIES OF
CAMERON...WILLACY...AND KENEDY.

...FLOOD INFORMATION...
BERYL HAS THE POTENTIAL OF PRODUCING TORRENTIAL RAINFALL THAT
COULD CAUSE FLOODING ACROSS DEEP SOUTH TEXAS AS IT MOVES INLAND
BECAUSE OF IT'S VERY SLOW SPEED. IT IS FORECAST TO MOVE AT ONLY 5
MPH. AT THIS TIME...ABOUT 5 TO 10 INCHES OF RAINFALL IS EXPECTED.
HOWEVER... RAINFALL AMOUNTS COULD BE EVEN HIGHER. A FLASH FLOOD
WATCH WILL LIKELY BE ISSUED THIS AFTERNOON TO BE IN EFFECT
TONIGHT AND TUESDAY FOR ALL OF DEEP SOUTH TEXAS.

REMEMBER THAT IN THE PAST 30 YEARS INLAND FLOODING FROM TROPICAL CYCLONES HAVE KILLED MORE PEOPLE EACH YEAR THAN ANY OTHER TROPICAL WEATHER PHENOMENA. PLEASE...IF YOU ENCOUNTER A FLOODED ROADWAY...TURN AROUND AND FIND AN ALTERNATE ROUTE.

...STORM SURGE...

HURRICANE TIDES OF 1 TO 3 FEET ABOVE NORMAL WILL FLOOD BEACHES AND LOW LYING AREAS OF SOUTH PADRE ISLAND BEGINNING EARLY TUESDAY MORNING.

A STORM SURGE OF 2 TO 5 FEET CAN BE EXPECTED NEAR AND TO THE NORTH OF WHERE THE HURRICANE MAKES LANDFALL. PERSONS LIVING IN TRAILERS OR MOBILE HOMES IN WILLACY...CAMERON...AND KENEDY COUNTIES SHOULD CONSIDER LOCKING UP THEIR HOMES...TURNING OFF UTILITIES AND LEAVING FOR INLAND AREAS UNTIL THE STORM HAS PASSED IF LOCAL OFFICIALS CALL FOR EVACUATION.

ABOVE NORMAL TIDES AND HIGH SURF WILL CAUSE CONSIDERABLE BEACH EROSION. STRONG RIP CURRENTS ARE EXPECTED...AND GOING INTO THE GULF WATERS NOW COULD RESULT IN DROWNING OR BEING SWEEPED INTO THE OPEN WATERS. SMALL CRAFT SHOULD BE IN DRY STORAGE...AND SHRIMPING AND OTHER COMMERCIAL VESSELS SHOULD BE IN TRADITIONAL SAFE HARBORS. CRAFT LEFT IN THE WATER...ESPECIALLY THE SHRIMP BASIN WHICH IS EXPOSED TO STRONG WINDS...SHOULD BE WELL SECURED TO MINIMIZE DAMAGE FROM ROLLING FORCES CAUSED BY HIGH WINDS AND WAVES. WITH THE EXPECTATION OF HIGH WINDS BY TUESDAY...ATTEMPTS TO SECURE BOATS AND GENERAL PREPAREDNESS SHOULD BEGIN NOW.

...WIND INFORMATION...

AT 1000 AM THE WINDS WERE 50 MPH WITH HIGHER GUSTS. WINDS ARE EXPECTED TO INCREASE STEADILY TONIGHT ALONG THE LOWER TEXAS COAST...AND COULD REACH HURRICANE FORCE ON TUESDAY IF BERYL CONTINUES TO STRENGTHEN. IF THE EYE OF A HURRICANE PASSES OVER THE AREA...WINDS WILL DROP SUDDENLY...POSSIBLY TO NEAR CALM...AND SKIES WILL CLEAR. DO NOT MISTAKE THIS FOR THE END OF THE STORM. THE WINDS WILL RETURN SUDDENLY...AND JUST AS STRONG...WITHIN MINUTES TO UP TO AN HOUR FROM THE OPPOSITE DIRECTION.

...TORNADOES...

TORNADOES ARE ALWAYS POSSIBLE WITH THE ADVANCE OF HURRICANE GENERATED WINDS AND THUNDERSTORMS AND RESIDENTS SHOULD BE ALERT TO THIS POSSIBILITY.

THE NEXT STATEMENT IS SCHEDULED FOR 1 PM CDT...BUT MAY BE RELEASED SOONER IF NEEDED.

STAY TUNED TO NOAA WEATHER RADIO OR LOCAL NEWS SOURCES FOR THE LATEST UPDATES ON BERYL.

(ATTENTION BROADCASTERS...THIS STATEMENT IS LONG AND YOUR LISTENERS MAY MISS IMPORTANT DETAILS IF IT IS ALWAYS READ IN IT'S ENTIRETY. PLEASE READ EXCERPTS AT FREQUENT INTERVALS THROUGH THE HOUR.)

EXAMPLE: SHORT TERM FORECAST (NOWCAST)

FPUS71 KMOB 192130
NOWMOB
SHORT TERM FORECAST
NATIONAL WEATHER SERVICE MOBILE AL
430 PM CDT SAT AUG 19 1995

ALZ051>064-MSZ067-075-076-078-079-192330-

.NOW...

...HURRICANE GARY WILL MOVE ACROSS BALDWIN AND MOBILE COUNTIES BY 530 PM... SUSTAINED WINDS ABOVE 80 MPH WITH HIGHER GUSTS AND TORRENTIAL RAINFALL CAN BE EXPECTED AS THE RAIN BAND MOVES ACROSS. THE RAIN BAND SHOULD WEAKEN SLIGHTLY AS IT MOVES ACROSS CLARKE...WASHINGTON...AND GEORGE COUNTIES BY 6 PM. BUT PEOPLE IN THESE COUNTIES SHOULD EXPECT WIND GUSTS TO NEAR HURRICANE FORCE AND EXTREMELY HEAVY RAINFALL.

&&

SCATTERED AREAS OF MODERATE TO HEAVY RAINFALL WILL CONTINUE ACROSS SOUTHERN ALABAMA AND MISSISSIPPI THROUGH 6 PM. BANDS OF STRONG STORMS WILL MOVE NORTHWESTWARD ACROSS THE AREA. EAST WINDS OF 30-40 MPH AND HEAVY RAIN WILL PERSIST WITH STRONGER WINDS AND HEAVIER RAINFALL NEAR THE RAIN BANDS. TEMPERATURES ACROSS THE REGION WILL REMAIN IN THE 70S.

EXAMPLE: SPECIAL WEATHER STATEMENT

WWUS35 KBHM 261400
SPSPNS
FLZ001>004-261600-

SPECIAL WEATHER STATEMENT
NATIONAL WEATHER SERVICE XXXXX
1000 AM EDT THU AUG 26 1999

...HURRICANE PROBABILITIES ARE INCREASING ALONG THE NORTHWEST
FLORIDA COAST...

HURRICANE XENA...NOW 350 MILES SOUTHEAST OF NEW ORLEANS...IS
MOVING SLOWLY NORTH AT 5 MILES AN HOUR. THE PROBABILITY OF XENA
STRIKING PENSACOLA HAS INCREASED TO 12 PERCENT. THE NORTHWEST
FLORIDA COAST AND THE ALABAMA COAST HAVE PROBABILITIES IN THE 10
TO 12 PERCENT RANGE WITH LOWER PROBABILITIES FOR THE REST OF THE
GULF COAST. ACCORDINGLY...THE PROBABILITIES SUGGEST THE GREATEST
ATTENTION SHOULD BE FOCUSED ON THE NORTHWEST FLORIDA AND
ALABAMA COASTS.

A HURRICANE WATCH MAY BE ISSUED LATER TODAY FOR THE NORTHWEST
COAST OF FLORIDA AND ADJACENT COUNTIES IN SOUTH ALABAMA. KEEP
TUNED TO NOAA WEATHER RADIO OR YOUR LOCAL MEDIA FOR FURTHER
INFORMATION ON XENA.

EXAMPLE: INLAND HURRICANE WIND WARNING

WWUS45 KHGX 101030
NPWHOU

URGENT - WEATHER MESSAGE
NATIONAL WEATHER SERVICE HOUSTON-GALVESTON TX
600 AM CDT FRI SEP 10 1995

...AN INLAND HURRICANE WIND WARNING IN EFFECT FOR SOUTHEAST
TEXAS...

HURRICANE FRED...LOCATED 60 MILES SOUTHEAST OF GALVESTON TX AT 6
AM CDT...IS MOVING TO THE NORTH NORTHWEST AT 10 MPH AND IS
EXPECTED TO MAKE LANDFALL AROUND NOON CDT ON THE UPPER TEXAS
COAST. FRED IS THEN FORECAST TO CONTINUE ON A NORTH NORTHWEST
COURSE MOVING ACROSS HOUSTON AND REACHING THE SAN JACINTO
NATIONAL FOREST BY LATE AFTERNOON. SUSTAINED WINDS OF 100 MPH

WITH GUSTS TO 120 MPH SHOULD BEGIN SWEEPING ACROSS THE UPPER TEXAS COAST BY LATE MORNING.

TXZ177>179-197>199-210>212-102200-
WALKER-SAN JACINTO-POLK-WASHINGTON-GRIMES-MONTGOMERY-
COLORADO-AUSTIN-WALLER-

...INLAND HURRICANE WIND WARNING...

WINDS ARE EXPECTED TO RAPIDLY INCREASE TO 50 TO 60 MPH BY 12 NOON AND 80 MPH WITH GUSTS TO 100 MPH BY MID AFTERNOON. 75 MPH WINDS WITH HIGHER GUSTS ARE LIKELY AS FAR INLAND AS HUNTSVILLE...NAVASOTA...AND LAKE LIVINGSTON BY LATE AFTERNOON.

BE PREPARED FOR NUMEROUS DOWNED TREES AND WIRES. DO NOT CROSS DOWNED WIRES...WHICH MAY STILL BE LIVE.

\$\$

TXZ226-227-235-213-200-102200-
WHARTON-FORT BEND-JACKSON-HARRIS-LIBERTY-

...INLAND HURRICANE WIND WARNING...

WINDS FROM WHARTON TO HOUSTON AND LIBERTY ARE EXPECTED TO INCREASE TO 50 TO 60 MPH THIS MORNING AND 90 MPH WITH GUSTS TO NEAR 110 MPH BY MIDDAY...DECREASING TO 50 TO 60 MPH LATE THIS AFTERNOON.

FLYING DEBRIS WILL POSE A MAJOR THREAT TO ALL STRUCTURES IN THE WARNED AREA...ESPECIALLY GLASS FROM HIGH-RISE BUILDINGS IN DOWNTOWN HOUSTON. PEOPLE LIVING IN MOBILE HOMES AND THOSE CONCERNED ABOUT THE ABILITY OF THEIR HOMES TO WITHSTAND HURRICANE WINDS SHOULD MOVE TO A STRONG BUILDING OR SHELTER IMMEDIATELY. BE PREPARED FOR NUMEROUS DOWNED TREES AND WIRES. TAKE SHELTER IN SMALL INTERIOR ROOMS OR REINFORCED STRUCTURES.
\$\$